STATEMENT OF

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BEFORE THE

HOUSE COMMITTEE ON RESOURCES

SUBCOMMITTEE ON WATER AND POWER

Hearing on S. 212

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Mr. Chairman and Members of the Committee, I am Robert Hirsch, Associate Director for Water at the U.S. Geological Survey. Thank you for the opportunity to provide the views of the Administration on S. 212, the "High Plains Aquifer Hydrogeologic Characterization, Mapping and Modeling Act," as amended and passed by the Senate. The Administration agrees with the bill's sponsors about the goals of the bill. Specifically, the importance of characterizing, mapping and modeling the High Plains Aquifer and the importance of coordinating efforts among Federal, State, and local entities. The Administration has three concerns with this bill as discussed more fully below.

Analysis of S. 212

First, the goals of this bill can be achieved without legislation, through better coordination of existing Federal and State programs. We are concerned that the total costs of the program proposed in S. 212 are uncertain. Funding is not included in the President's FY 2004 budget and would be subject to available resources. In future years, funding would need to be established in light of the full range of competing priorities of the Administration. The goals of the bill can be met through a combination of activities in four specific existing programs of the U.S. Geological Survey (USGS). These programs are the Cooperative Water Program, the National Cooperative Geologic Mapping Program, the Water Resources Research Institutes Program, and the Ground Water Resources Program. The first three programs involve significant consultation and cost sharing with the States. The last program, the Ground Water Resources Program, provides research and summarization of the status and trends of the water resources of the entire High Plains Aquifer system.

Second, the bill, as amended, does not address the need for monitoring, although it mentions characterization, mapping, and modeling. Monitoring is a crucial scientific component aimed at better understanding this aquifer. We note that S. 212, as introduced, contained provisions that addressed monitoring.

Third, USGS scientific activities should be done in collaboration with State scientific activities, when appropriate. Accordingly, we are concerned that S. 212 as amended does not contain specific language limiting the Federal cost share to no more than 50 percent. In testimony given before the Senate Energy

and Natural Resources Subcommittee on Water and Power on S. 212, we recommended the inclusion of language similar to that currently contained in the National Cooperative Mapping Act (43 U.S.C. Chapter 2, Section 31 c.). As currently drafted, the S. 212 is unclear about funding mechanisms and formulas.

Background

Irrigation water pumped from the High Plains Aquifer has made the High Plains one of the Nation's most important agricultural areas. The intense use of ground water has caused major declines in ground-water levels raising concerns about the long-term sustainability of irrigated agriculture in many areas of the High Plains. The changes are particularly evident in the central and southern parts of the High Plains, where more than 50 percent of the aquifer has been dewatered in some areas.

S. 212 directs the Secretary of the Interior, acting through the USGS, and in cooperation with the High Plains Aquifer States, to establish and carry out a program of characterization, mapping, modeling, and monitoring of the High Plains Aquifer. This would be accomplished through mapping of the configuration of the High Plains Aquifer, and analyses of the rates at which ground water is being withdrawn and recharged, changes in water storage in the aquifer, and the factors controlling the rate of flow of water within the aquifer. Effective coordination of the data collection and monitoring efforts requires that any data collected under the program be consistent with Federal Geographic Data Committee data standards and that metadata be published on the National Spatial Data Infrastructure Clearinghouse.

The role identified for DOI in S. 212 is consistent with USGS's leadership role in interpretation, research, and assessment of the earth and biological resources of the Nation. As the Nation's largest water, earth, and biological science, and civilian mapping agency, USGS conducts the most extensive geologic mapping and ground-water investigations in the Nation in conjunction with our State and local partners. Furthermore, the USGS has been active in a number of programs and investigations that involve the High Plains Aquifer, specifically.

The USGS has offices in each of the eight States underlain by the High Plains Aquifer (Texas, Oklahoma, Kansas, Nebraska, South Dakota, Wyoming, Colorado, and New Mexico). These offices have a long history of ground-water monitoring and assessment activities within the aquifer. .

The USGS carried out the first comprehensive quantitative study of the High Plains Aquifer in the late 1970's through the Regional Aquifer-System Analysis (RASA) Program. With our partners in the Cooperative Water Program, we continue to provide ground-water models to evaluate the present and future state of the aquifer in some parts of the High Plains, although an overall assessment of the aquifer is now over two decades old.

In response to the water-level declines, a ground-water monitoring program was begun across the High Plains in 1988 to assess annual water-level changes in the aquifer, an effort requiring collaboration among numerous Federal, State, and local water-resource agencies. Water levels continue to decrease in many areas of the aquifer, but the monitoring has indicated that the overall rate of decline of the water table has slowed during the past two decades. This change is attributed to improved irrigation and cultivation practices, decreases in irrigated acreage, and above normal precipitation during this period. More in-depth studies are required to determine the relative importance of these different factors and to improve estimates of recharge rates, which is crucial to projecting future water levels and their response to changing agricultural practices.

Conclusion

A reliable source of ground water is an essential element of the economy of the communities on the High Plains. The goals of S. 212 are commendable; it contains provisions that are well within the scope and expertise of the USGS, and it emphasizes a high level of coordination between the Department of Interior and the States in addressing an issue of significant economic concern to the Nation. However, as noted above, the Administration has concerns about the bill. Moreover, any new funding resulting from its enactment would remain subject to available resources.

Mr. Chairman, thank you for the opportunity to present this testimony. I will be pleased to answer any questions that you and other members of the Committee might have.